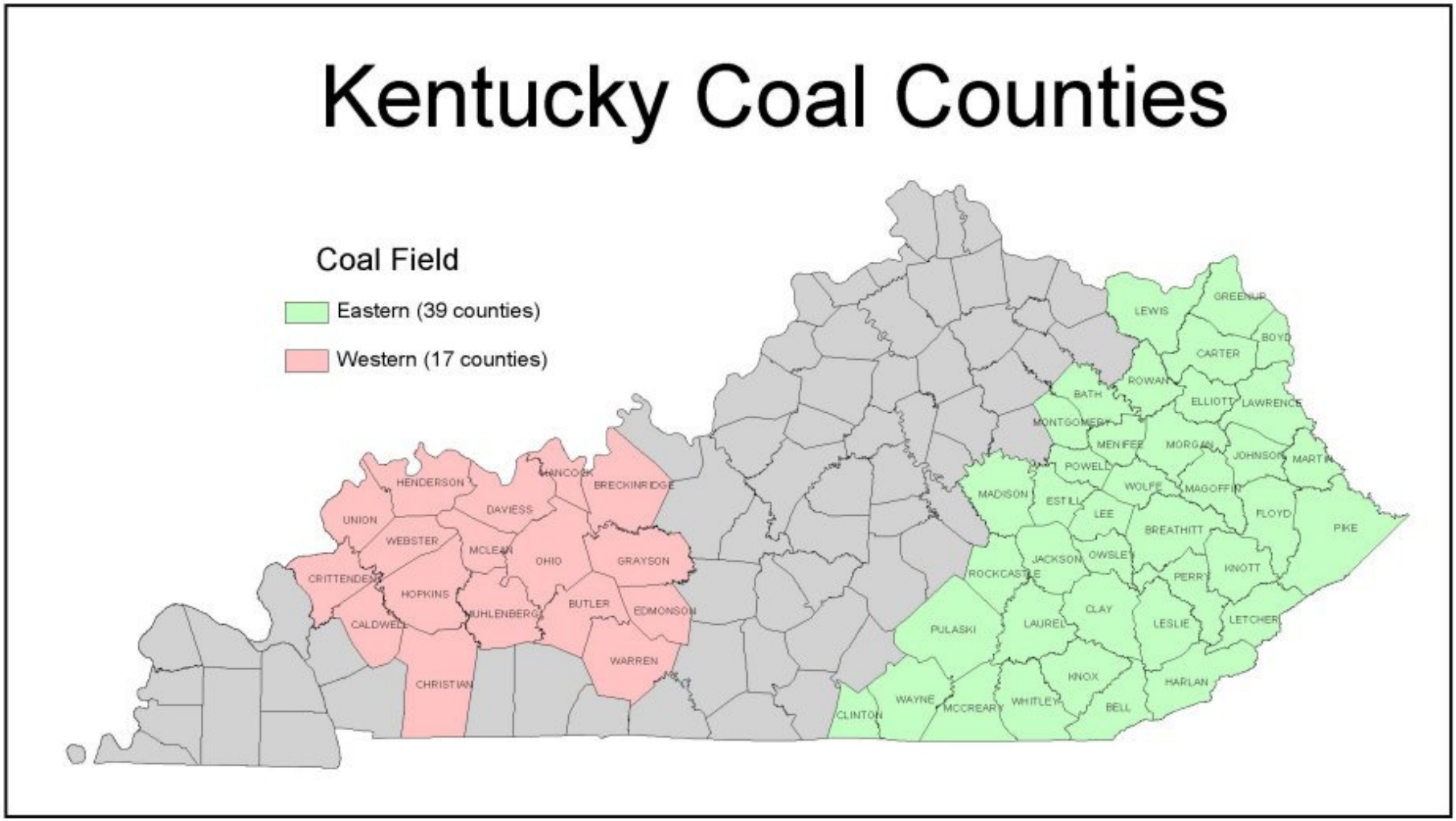
NEW COAL GENERAL PERMITS

OVERVIEW

Coverage



Kentucky
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County Coverage

KYGE40000 – Covers only:

Bath, Bell, Boyd, Breathitt, Carter, Clay, Cumberland, Elliott, Estill, Floyd, Greenup, Harlan, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, McCreary, Madison, Magoffin, Martin, Menifee, Montgomery, Morgan, Owsley, Perry, Pike, Powell, Pulaski, Rockcastle, Rowan, Wayne, Whitley or Wolfe Counties

KYGW40000 – Covers only:

Breckinridge, Butler, Caldwell, Christian, Crittenden, Daviess, Edmonson, Grayson, Hancock, Henderson, Hopkins, McLean, Muhlenberg, Ohio, Union, Warren and Webster Counties

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Eligibility Requirements

- KYGE40000
  - Have obtained or in the process of obtaining a permanent program SMCRA permit from DNR
  - Physically located in eastern KY coalfield
- KYGW40000
  - Have obtained or in the process of obtaining a permanent program SMCRA permit from DNR
  - Physically located in western KY coalfield
  - Do not have a continuous discharge (i.e. a discharge that occurs without interruption or has an average discharge duration of 96 hours or more)

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Exclusions

- KYGE40000 & KYGW40000
  - Coal mining and/or processing operations that directly discharge to or propose to directly discharge to:
    - "Impaired Water" for pollutants of concern associated with such activities and for which an approved Total Maximum Daily Load (TMDL) has been developed,
    - A CAH
    - An OSRW that supports a federally listed Threatened or Endangered (T&E) species,
    - An Outstanding National Resource Water (ONRW), or
  - New or expanded discharge within 5 miles upstream of an existing domestic water supply intake (surface intake) or
  - DOW determines is more appropriately addressed by an individual permit

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Effluent Limitations Categories

- **KYGE40000**
  - Underground workings and coal preparation plants & associated areas
  - In-stream sediment control structures – active mining and reclamation
    - » For the purposes of this permit in-stream sediment control structures are those sediment control structures that are constructed within the natural drainage way of a water body or have a continuous discharge or have an average discharge duration of 96 hours or more
  - Bench sediment control structures – active mining and reclamation
    - » Bench sediment control structures are sediment control structures that do not meet the definition of an in-stream sediment control structure.
  - Sanitary wastewaters – direct and indirect discharges

- **KYGW400**00
  - Non-reclamation areas
    - » Non-reclamation area drainage includes drainage from coal preparation plants, coal preparation plant associated areas, the underground workings of an underground mine both active and post mining, and active surface mine drainage.
  - Reclamation areas
    - » Reclamation areas are the surface areas of a coal mine which have been returned to the required contour and on which revegetation, specifically seeding or planting work, has commenced.
  - Sanitary wastewaters – direct and indirect discharges

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Effluent Parameters – KYGE40000

- KYGE40000
  - Underground Workings, Coal Preparation Plants, and Associated Areas
    - Flow, TSS, Fe, Mn, Specific Conductivity, Acute Whole Effluent Toxicity (WET), Total Sulfate (SO_4), Total Recoverable Selenium (Se), Total Recoverable Selenium in Fish Tissue (Se Fish) , Precipitation Volume and pH
  - In-stream Sediment Control Structures – Active Mining
    - Flow, TSS, Fe, Mn, Specific Conductivity, Chronic WET, SO_4, Se, Se Fish, Precipitation Volume and pH
  - Bench Sediment Control Structures – Active Mining
    - Flow, TSS, Fe, Mn, Specific Conductivity, SO_4, Precipitation Volume and pH
  - In-stream Sediment Control Structures – Reclamation Areas
    - Flow, Settleable Solids (SS), Specific Conductivity, SO_4, Precipitation Volume and pH
  - Bench Sediment Control Structures – Reclamation Areas
    - Flow, SS, Specific Conductivity, SO_4, Precipitation Volume and pH
  - Sanitary Indirect Discharge
    - Flow, Biochemical Oxygen Demand (5 day) (BOD_5), and TSS
  - Sanitary Direct Discharge
    - Flow, Carbonaceous Biochemical Oxygen Demand (5 day) ($CBOD_5$), TSS, Ammonia (as NH3N), E. Coli, Dissolved Oxygen (DO), Total Residual Chlorine (TRCl), and pH

Kentucky UNBRIDLED SPIRIT

Effluent Parameters – KYGW40000

- KYGW40000
  - Non-reclamation Areas (active surface and underground mining, coal preparation plants & associated areas)
    - Flow, TSS, Fe, Mn, Specific Conductivity, Acute WET, SO4, Se, Se Fish, Precipitation Volume and pH
  - Reclamation Areas
    - Flow, SS, Specific Conductivity, SO_4, Precipitation Volume and pH
  - Sanitary Indirect Discharge
    - Flow, BOD_5, and TSS
  - Sanitary Direct Discharge
    - Flow, $CBOD_5$, TSS, NH_3N, E. Coli, DO, TRCl, and pH

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Total Recoverable Iron

- Monthly Average 3.0 mg/l NSPS
- Daily Maximum 4.0 mg/l WQBEL

- Only New Source Performance Standards (NSPS) have been included in this permit for iron. The Best Practicable Control Technology Currently Available (BPT) and the Best Available Technology Economically Achievable (BAT) requirements for existing sources have not been included to simplify the permit. DOW has elected not to include these limitations due to the new source determination dates for: (1) coal preparation plants (January 31, 1982) and (2) the initiation or major alteration of coal mining activities (May 4, 1984). Permittees with operations that can qualify as an existing source are required to obtain an individual KPDES permit in order to avail themselves of these limitations.
- If discharge is to a water body that is impaired for iron an individual permit is required.

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Definitions of Existing, New and Expanded Facilities

- Existing facilities are those facilities that were permitted by DOW prior to the effective date of coverage

- New facilities are those facilities that commence after the effective date of this permit and include the following:
  - New surface mining areas draining to in-stream sediment control structure(s);
  - A new coal preparation plant; or.
  - A new underground mine is an underground mine that has a surface discharge.

- Expanded facilities are existing facilities where one or more of the following occur after the effective date of this permit:

  Expanded active surface mining areas draining to an in-stream sediment control structure including:
  - new acreage (greater than 10 % of the originally permitted acreage not to exceed 20 acres) draining to an existing in-stream sediment control structure, or
  - a new fill, or the enlargement of an existing fill over its original design by 10 % or greater ;

  A coal preparation plant where a new slurry impoundment or enlargements of an existing slurry impoundment over its original design by 10 % or greater (acreage);

  An underground mine the expansion of which necessitates a new surface discharge.

Kentucky
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Definitions of Existing, New and Expanded Facilities

- Existing facilities are those facilities that were in operation prior to the effective date of coverage

- New facilities are those facilities that commence after the effective date of this permit and include the following:
  - New surface mining areas draining to in-stream sediment control structure(s);
  - A new coal preparation plant; or.
  - A new underground mine is an underground mine that has a surface discharge.

- Expanded facilities are existing facilities where one or more of the following occur after the effective date of this permit:
  - Expanded active surface mining areas draining to an in-stream sediment control structure include:
  - new acreage (greater than 10 % of the originally permitted acreage not to exceed 20 acres) draining to an existing in-stream sediment control structure, or
  - a new fill, or the enlargement of an existing fill over its original design by 10 % or greater ;
  - A coal preparation plant where a new slurry impoundment or enlargements of an existing slurry impoundment over its original design by 10 % or greater (acreage);
  - An underground mine the expansion of which necessitates a new surface discharge.

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Whole Effluent Toxicity (WET)

- Whole Effluent Toxicity (WET) refers to the aggregate toxic effect to aquatic organisms from all pollutants contained in a facility's wastewater (effluent). It is one way to implement the Clean Water Act's prohibition of the discharge of toxic pollutants in toxic amounts. WET tests measure the effects of wastewater on the ability of specific test organisms to survive, grow and reproduce. WET is also used in this permit to determine compliance with narrative water quality standards such as specific conductance.
- **Acute**
  - Effluent acute toxicity is generally measured using a multi-concentration, or definitive test, consisting of a control and a minimum of five effluent concentrations. The tests are designed to provide dose-response information, expressed as the percent effluent concentration that is lethal to 50% of the test organisms (LC50) within the prescribed period of time (24-96 h), or the highest effluent concentration in which survival is not statistically significantly different from the control.
- **Chronic**
  - Effluent chronic toxicity is generally measured using a multi-concentration, or definitive test, consisting of a control and a minimum of five effluent concentrations. The tests are designed to provide dose-response information, expressed as the percent effluent concentration that affects the hatchability, gross morphological abnormalities, survival, growth, and/or reproduction within the prescribed period of time (four to seven days). The results of the tests are expressed in terms of the highest concentration that has no statistically significant observed effect on those responses when compared to the controls or the estimated concentration that causes a specified percent reduction in responses versus the controls.

Kentucky UNBRIDLED SPIRIT

WET Test Requirements

- Acute
  - 48 hour lethality test using water flea and fathead minnow in 100% effluent
  - Effluent limitation – 1.00 TU_A
- Chronic
  - 7 day reproduction (water flea) and growth (fathead minnow) in 100% effluent
  - Effluent limitation – 1.00 TU_C

- Test failure results in requirement to conduct second WET test within 10 days for acute and 15 days for chronic
- Failure of second test results in accelerated testing, i.e. 4 additional tests conducted with 60 days of the second failure
- Failure of 4 out of the 6 tests, or failure of any 2 tests by 1.2 times the limit, results in the initiation of a Toxicity Reduction Evaluation (TRE)
- Entering into a TRE requires permittee to evaluate the operation's Best Management Practices (BMP) Plan and determine if modifications can be made to remedy the toxicity

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WET Permit Requirements

- Existing facilities must initiate testing as soon as possible but no later than January 1, 2016
- New and expanded facilities must initiate testing with 30 days of the effective date of coverage
- KYGE40000
  - Acute WET testing required for coal preparation plant and underground mine discharges
  - Chronic WET testing required on any sediment control structure classified as an “in-stream sediment control structure”
- KYGW40000
- Acute WET testing required for all Non-reclamation Area discharges

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Selenium Requirements

- Existing facilities must initiate testing as soon as possible but no later than January 1, 2016
- New and expanded facilities the condition is effective within 30 days of the effective date of coverage
- Monthly average trigger of 5 µg/l once tripped requires permittee to collect fish specimens to conduct fish tissue analysis for selenium residue.
- If fish tissue collection and analysis is required the whole body dry weight limitation is 8.6 mg/Kg
- If no fish tissue is collected, the monthly average trigger of 5 µg/l becomes the limit
- Daily maximum effluent limit is 20 µg/l

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Fish Tissue Sampling Requirements

- Each time the 5 µg/l monthly average is tripped the permitee must collect fish specimens for tissue analysis in the following calendar month.
- Sampling for fish begins within 50 feet of outfall and proceeds downstream in 100 meter reaches up to a maximum of 4.
- Once sufficient fish specimens are collected, the tissue is analyzed and results reported the following calendar month.
- If the analysis results exceed the 8.6 mg/Kg dry weight the permittee has violated the permit.
- If insufficient fish can be collected within the 4 100-meter reaches then the 5 µg/l becomes an effluent limitation that has been violated.

Kentucky
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Monitoring Frequency – KYGE40000

- Underground Workings, and Coal Preparation Plants and Associated Areas
  - 2/Month - Flow, TSS, Fe, Mn, Specific Conductivity, SO4, Se, and pH
  - 1/ Quarter – Acute WET
  - Conditional – Se Fish, Precipitation Volume
- In-stream Sediment Control Structures – Active Mining
  - 2/Month - Flow, TSS, Fe, Mn, Specific Conductivity, SO4, Se, and pH
  - 1/ Quarter – Chronic WET
  - Conditional – Se Fish, Precipitation Volume
- Bench Sediment Control Structures – Active Mining
  - 2/Month - Flow, TSS, Fe, Mn, Specific Conductivity, SO4, and pH
  - Conditional – Precipitation Volume
- In-stream Sediment Control Structures – Reclamation Areas
  - 1/ Month - Flow, SS, Specific Conductivity, SO4, and pH
  - Conditional – Precipitation Volume
- Bench Sediment Control Structures – Reclamation Areas
  - 1/ Month - Flow, SS, Specific Conductivity, SO4, and pH
  - Conditional – Precipitation Volume
- Sanitary Indirect Discharge
  - 1/Month - Flow, BOD5, and TSS
- Sanitary Direct Discharge
  - 1/Month - Flow, CBOD5, TSS, NH3N, DO , TRC, and pH

Kentucky
UNBRIDLED SPIRIT

Monitoring Frequency – KYGW40000

- Non-reclamation Areas (active surface and underground mining, coal preparation plants & associated areas)
  - 2/Month - Flow, TSS, Fe, Mn, Specific Conductivity, SO_4, Se, and pH
  - 1/ Quarter – Acute WET
  - Conditional – Se Fish, Precipitation Volume
- Reclamation Areas
  - 1/ Month - Flow, SS, Specific Conductivity, SO_4, and pH
  - Conditional – Precipitation Volume
- Sanitary Indirect Discharge
  - 1/Month - Flow, BOD_5, and TSS
- Sanitary Direct Discharge
  - 1/Month - Flow, $CBOD_5$, TSS, NH_3N, E. Coli, DO , TRCl, and pH

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Shared Ponds

- When a pond is shared between two facilities that have different types of drainage, i.e. active mining versus reclamation, both facilities are subject to the active mining effluent requirements pursuant to 40 CFR 434.61.
  - **§434.61 Commingling of waste streams.**
    - Where waste streams from any facility covered by this part are combined for treatment or discharge with waste streams from another facility covered by this part, the concentration of each pollutant in the combined discharge may not exceed the most stringent limitations for that pollutant applicable to any component waste stream of the discharge.
- Reclamation limits for the pond will not be available until both facilities send reclamation area drainage to that pond.
- The coverage letters for both facilities will have to reflect the shared status and the assigned effluent limitations.

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Substantially Identical Outfalls (SIOs)

- Substantially identical outfalls (SIOs) are outfalls that receive drainage from the same type of activities, utilize the same type of sediment control structures, are within the same watershed, are expected to produce similar effluents and would be subject to the same effluent limitations.
- In such cases, DOW may authorize the permittee, upon request, to monitor representative outfalls for compliance purposes.
- In such cases a Compliance Representative Outfall (CRO) will be designated

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SIOs Demonstration

- Requests to monitor an outfall that is representative of two or more substantially identical outfalls, shall document the following:
  - Location of each of the substantially identical outfalls;
  - The KPDES permit outfall number assigned to each outfall;
  - The types of activities taking place within the contributing drainage area of each outfall;
  - Description of the sediment control structures for each outfall;
  - The expected frequency and volume of flow for each outfall;
  - Why the permittee expects the outfalls to produce similar effluents;
  - The outfall the permittee requests as the representative outfall; and
  - The basis for selecting the representative outfall.
  - Requests shall be made using DOW's electronic web based eNOI-KYG04, available on KDEP's forms library site at: http://dep.ky.gov/formslibrary/Pages/default.aspx.

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SIOs - Implementation

- Implementation

  When utilizing a representative outfall for substantially identical outfalls the following conditions apply:

  – Representative outfalls (RO) are KPDES permit specific and cannot be used for reporting compliance samples on other KPDES permits;

  – DMRs for each outfall substantially identical to the representative outfall shall be submitted utilizing the analytical data from corresponding representative outfall;

  – Corrective actions or additional monitoring triggered by monitoring results from the representative outfall shall be implemented at each of the substantially identical outfalls;

  – No Discharge (NODI) codes may be use only if the representative outfall does not discharge.

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Transitioning to Reclamation Area Status

- To transition from active mining effluent limitations and monitoring requirements to reclamation area effluent limitations and monitoring requirements the following conditions apply:
  - On a pond by pond basis
  - There is no drainage from:
    - Active surface mine areas,
    - Underground workings of underground mines (active or post mining),
    - Coal preparation plant or coal preparation associated areas;
  - The effluent from the sediment control structure has been substantially in compliance with the water quality-based effluent limitations (WQBELs).

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Alternate Precipitation Effluent Limitations (APELs)

- Alternate precipitation effluent limitations (APELs) may be substituted, on a case-by-case basis for the following Technology-Based Effluent Limitations (TBELs):
  - Monthly Average Total Recoverable Iron (TRFe)
  - Total Recoverable Manganese (TRM)
  - Total Suspended Solids (TSS)
  - Settable Solids (SS)
- APELs are a function of the size of the precipitation event and the type of drainage received by the sediment control structure. The precipitation volume is the total volume of rainfall or equivalent snow melt that has occurred during the 24 hours preceding the commencement or increase in the discharge (qualifying event).
- To apply for APELs, permittee must report the precipitation volume of the qualifying event on their DMRs

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APELs – KYGE40000

TABLE 1.		
ALTERNATE PRECIPITATION EFFLUENT LIMITATIONS		
Source Determining Effluent Limits	**Precipitation Volume (PV) inches of rainfall**	
	0.01 < PV ≤ 4.3	**PV > 4.3**
UGNC	Not Applicable	Not Applicable
UGC	Not Applicable	TRM, TSS not required
CSMD	Not Applicable	TRM, TSS not required
RA	Not Applicable	SS not required
NSMD	TRM not required SS (0.5 ml/l) replaces TSS The monthly average concentration for TRFe shall not exceed 3.5 mg/l	SS, TRM, TSS not required The monthly average concentration for TRFe shall not exceed 3.5 mg/l
SSMR	TRM not required SS (0.5 ml/l) replaces TSS The monthly average concentration for TRFe shall not exceed 3.5 mg/l	SS, TRM, TSS not required The monthly average concentration for TRFe shall not exceed 3.5 mg/l
PPAA	TRM not required SS (0.5 ml/l) replaces TSS The monthly average concentration for TRFe shall not exceed 3.5 mg/l	SS, TRM, TSS not required The monthly average concentration for TRFe shall not exceed 3.5 mg/l

Kentucky UNBRIDLED SPIRIT

APEL Codes – KYGE40000

- **UGNC** - Discharges from underground workings of underground mines **not commingled. "**Commingled" means two or more types of drainage that are combined for treatment or discharge.
- **UGC** - Discharges from underground workings of underground mines **commingled. "**Commingled" means two or more types of drainage that are combined for treatment or discharge.
- **CSMD** - Controlled surface mine drainage (except steep slope and mountaintop removal). "Controlled surface mine drainage" means any surface mine drainage that is pumped or siphoned from the active mining area. "Steep slope" means surface mining activities conducted on slopes greater than 20%. "Mountaintop removal" means surface coal mining and reclamation operations that remove entire coal seams running through the upper fraction of a mountain, ridge, or hill by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining.
- **NSMD** - Non-controlled surface mine drainage (except steep slope and mountaintop removal). "Steep slope" means surface mining activities conducted on slopes greater than 20%. "Mountaintop removal" means surface coal mining and reclamation operations that remove entire coal seams running through the upper fraction of a mountain, ridge, or hill by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining.
- **SSMR** - Discharges from steep slope and mountaintop removal areas. "Steep slope" means surface mining activities conducted on slopes greater than 20%. "Mountaintop removal" means surface coal mining and reclamation operations that remove entire coal seams running through the upper fraction of a mountain, ridge, or hill by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining.
- **PPAA** - Discharges from coal preparation plant and coal preparation plant associated areas (excluding coal refuse disposal piles). "Coal preparation plant" means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then loaded for transit to a consuming facility. Includes all pipes, channels, basins, tanks and all other structures and equipment that convey, contain, treat, or process any water that is used in the coal preparation plant (including slurry sediment control structures, freshwater sediment control structures, and conveyances). "Coal preparation associated areas" means coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.
- **RA** - Reclamation Areas. "Reclamation area" means the surface area of a coal mine which has been returned to required contour and on which revegetation (specially, seeding or planting) work has commenced.

Kentucky
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APELs – KYGW40000

TABLE 1.		
ALTERNATE PRECIPITATION EFFLUENT LIMITATIONS		
Source Determining Effluent Limits	**Precipitation Volume (PV) inches of rainfall**	
	0.01 < PV ≤ 4.8	**PV > 4.8**
UGNC	Not Applicable	Not Applicable
UGC	Not Applicable	TRM, TSS not required
CSMD	Not Applicable	TRM, TSS not required
RA	Not Applicable	SS not required
NSMD	TRM not required SS (0.5 ml/l) replaces TSS The monthly average concentration for TRFe shall not exceed 3.5 mg/l	SS, TRM, TSS not required The monthly average concentration for TRFe shall not exceed 3.5 mg/l
PPAA	TRM not required SS (0.5 ml/l) replaces TSS The monthly average concentration for TRFe shall not exceed 3.5 mg/l	SS, TRM, TSS not required The monthly average concentration for TRFe shall not exceed 3.5 mg/l

Kentucky UNBRIDLED SPIRIT

APEL Codes – KYGW40000

- **UGNC** - Discharges from underground workings of underground mines **not commingled. "**Commingled" means two or more types of drainage that are combined for treatment or discharge.
- **UGC** - Discharges from underground workings of underground mines **commingled. "**Commingled" means two or more types of drainage that are combined for treatment or discharge.
- **CSMD** - Controlled surface mine drainage (except steep slope and mountaintop removal). "Controlled surface mine drainage" means any surface mine drainage that is pumped or siphoned from the active mining area. "Steep slope" means surface mining activities conducted on slopes greater than 20%. "Mountaintop removal" means surface coal mining and reclamation operations that remove entire coal seams running through the upper fraction of a mountain, ridge, or hill by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining.
- **PPAA** - Discharges from coal preparation plant and coal preparation plant associated areas (excluding coal refuse disposal piles). "Coal preparation plant" means a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then loaded for transit to a consuming facility. Includes all pipes, channels, basins, tanks and all other structures and equipment that convey, contain, treat, or process any water that is used in the coal preparation plant (including slurry sediment control structures, freshwater sediment control structures, and conveyances). "Coal preparation associated areas" means coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.
- **RA** - Reclamation Areas. "Reclamation area" means the surface area of a coal mine which has been returned to required contour and on which revegetation (specially, seeding or planting) work has commenced.

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BMP Plan Requirements

- KYGE40000 – Standard Language plus additional conductivity-related conditions

- KYGW40000 – Standard Language

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Discharge Monitoring Reports (DMRs)

- electronic submission using EPA tool NetDMR only
- Submission shall begin with the initial DMR upon effective date of new or renewal of coverage.
- Permits provide lists of No Discharge (NODI) Codes

TABLE 1.	
NODI Code	**Definition**
2	Operation Shutdown
5	Frozen Conditions
9	Conditional Monitoring – Not Required This Period
C	No Discharge
F	Insufficient Flow For Sampling
I	Land Applied
J	Recycled –Water-Closed System
K	Natural Disaster
N	Not Constructed
Q	Not Quantifiable
R	Administratively Resolved
V	Weather Related

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Notice of Intent (NOI)

- Electronic Notice of Intent
- eNOI-KYG04
  - Web based submission of NOI only (No paper)
  - Form is interactive will expand to allow additional data to be entered
  - Effluent sample for coverage required
    - Renewal coverages within preceding 4 years from date of submission
    - New or expanded coverages with preceding 12 months from date of submission
  - Attachments include Mining Reclamation Plan (MRP) Map, KPDES map, justification for representative outfalls, Socioeconomic Demonstration and Alternatives Analysis (SDAA) for new or expanded facilities
  - Electronic fee payments only (no paper checks)

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Notice of Intent Deadlines

- eNOI Submission Deadlines
  - For new facilities a minimum of 90 days prior to commencement of discharge
  - For modification of existing coverages a minimum of 90 days prior to modification of facility
  - Renewal coverages within 180 days of the effective date of permits
- New or expanded facilities given priority
- Existing coverages under KYG040000 will continue in effect until coverage under KYGE40000 or KYGW40000 is granted

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Public Participation

- To address this issue DOW is implementing the following steps.
  - An e-mail will be sent to DOW's "listserv" members when an eNOI is first received. There is no comment period associated with this notification.
  - For new and expanded operations the noticing of the SDAA will continue as it has been done under KYG040000
  - An e-mail will be sent to DOW's "listserv" members when a cover letter has been issued for any new or modified coverage.

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Other Requirements

- Certified Laboratory Requirements
  - All laboratory analyses and tests required to demonstrate compliance with the conditions of this permit shall be performed by EEC certified general wastewater laboratories and EEC certified field-only laboratories. Compliance with this requirement shall commence on January 1, 2015 for analyses and tests performed by a general wastewater laboratory, and January 1, 2016 for field-only wastewater laboratories.
- Certified Operator
  - Pursuant to 401 KAR 5:010, Section 1 a treatment plant with a design capacity of less than or equal to 50,000 gallons per day shall be under the primary responsibility of a certified operator holding an active Class I, II, III, or IV treatment certificate.

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Additional KYGE40000 Specific Requirements

- In-stream monitoring program
- Pre-mining survey
- Additional BMP requirements

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In-stream Requirements

- KYGE40000 – Required for new and expanded only
- KYGW40000 – Not Required

- Monitoring program imposed to address protection of narrative water quality standards and is based on site specific conditions

- Permittee required to conduct pre-mining survey to determine background physical, chemical and biological condition of receiving waters

- Prior to conducting survey permittee must obtain concurrence from DOW of the selected in-stream monitoring points

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Implementation of In-stream Requirements

- Background biological index score determines the biological index category
- The minimum score for that category is then imposed as an in-stream minimum limitation
- Permittee shall conduct annual biological assessments at the same monitoring locations in the pre-mining survey
- Should any annual score fall below the category minimum, the permittee has violated the permit and is required to evaluate their BMP plan
- Permittee is also required to conduct quarterly monitoring at the in-stream monitoring locations for the following parameters to be used in chemical specific trending analysis:

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Pre-Mining Survey

- At each agreed upon in-stream location the permittee shall collect a sample for the following physical and chemical parameters:

Flow	**Total Recoverable Selenium**
Total Suspended Solids	**Turbidity**
Total Recoverable Iron	**Alkalinity (as $CaCO_3$)**
pH	**Dissolved Oxygen**
Specific Conductivity	**Temperature**
Total Sulfate (as SO_4)	**Total Hardness (as $CaCO_3$)**

- At each agreed upon in-stream location the permittee shall collect a sample of the biological community to determine the background biological index score
- Samples shall be collected and analyzed by qualified personnel in accordance with DOW standard operational procedures (SOPs)
- Samples shall be collected by qualified personnel in accordance with DOW standard operational procedures (SOPs)
- SOPs can be found at: http://water.ky.gov/permitting/Pages/Mining.aspx
- Chemical analysis shall be performed by a KY certified wastewater laboratory

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Additional BMP Requirements

- Establishes three triggers for required evaluation of existing BMPs
  - Biological Score Trigger
    - The annual score and the baseline score developed during the pre-mining survey shall be directly compared for each of the receiving waters evaluated.
    - Should there be a decrease in the score from the baseline score or a lowering of category from the baseline category the permittee shall review the BMPs currently employed.
    - A single annual biological index score lower than the baseline biological category minimum score, thus resulting in a lowering of the biological category, is a permit violation.
  - Water Quality Trigger
    - The rolling average of two consecutive calendar quarters of in-stream water quality samples shall be compared to the baseline conditions determined during the pre-mining survey.
    - The permittee shall review the BMPs currently employed when:
      - The quarterly average pollutant concentrations in the discharge are greater than the in-stream baseline concentrations for those pollutants; and
      - The rolling average of two consecutive calendar quarters of in-stream concentrations for the same pollutants are:
        - » 10 percent greater than the baseline concentrations for two consecutive calendar quarters, or
        - » 20 percent greater than the baseline concentrations for any calendar quarter.
  - WET Trigger
    - A Toxicity Reduction Evaluation (TRE) has been initiated in accordance with the WET requirements

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Implementation of Additional BMP Requirements

- Tripping of trigger requires completion of a BMP evaluation within 45 days
- If evaluation determines modifications are required the permittee shall
  - Proposed modifications that do not require changes to the SMCRA permit, shall be implemented within 90 days of the finalization of the evaluation.
  - Proposed modifications that require changes to the SMCRA permit; the permittee shall submit an application to DNR to modify the SMCRA permit within 90 days of the finalization of the evaluation, and implement the necessary changes within 180 days of DNR issuing the SMCRA permit modification.

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